

REMARKS

Claims 1-20 were previously pending in the application. No claims have been added, amended or canceled. Thus, upon claims 1-20 are subject to continued examination.

OBVIOUSNESS:

Claims 1-4, 7-15, and 18-20 stand rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent 6,065,772 to Yamamoto et al. in view of U.S. Patent 6,129,377 to Okumura et al.. Claims 5, 6, 16 and 17 stand rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent 6,065,772 to Yamamoto et al. in view of U.S. Patent 6,129,377 to Okumura et al. and further in view of U.S. Patent 5,618,595 to Matsushima et al.. All obviousness rejections are respectfully traversed and reconsideration is requested at this time.

Applicants respectfully submit that the combination of references relied upon does not establish a *prima facie* case of obviousness with respect to any of the claims since each of the claims requires that the staggered expansion restraining elements are adapted to remain operative so as to provide expansion restraint upon full inflation of the air bag cushion without failing. In this regard it is to be noted that the primary reference to Yamamoto et al. actually teaches away from such an arrangement by advocating that the seam 57 between the upper chamber and the upper rear chamber be a tear seam.

The modification proposed by the Office Action is to replace the tear seam 57 in Yamamoto et al. with a permanent tensing joint 22 of Okumura et al... However, if such an alteration were made the principle of operation of the air bag in Yamamoto et al. would be fundamentally changed. As best understood, Yamamoto et al. relies upon the staged separation of the tear seam 57 to first achieve deployment above the seat belt (i.e. upwardly) and then towards the vehicle rear side when pressure is adequate. A description of this deployment is provided at Col. 9, lines 6-26 of the primary reference and is illustrated sequentially in FIGS. 12(a) through 12(d).

If the tear seam 57 in Yamamoto et al. were replaced with a permanent expansion restraining element, no staged rearward deployment would be achieved. In fact, it appears that incorporating a permanent expansion restraining element in place of the tear seam 57 in the design of Yamamoto would give rise to potentially undesirable consequences. Specifically, the presence of the restraining element would substantially slow the second (rearward) stage of deployment since the gas flow opening would not expand. Thus, desired rearward coverage would be delayed. If the restraining element were small enough that gas could flow around it without substantial obstruction, the desired initial vertical deployment to clear the seat belt would not be achieved and obstruction by the seat belt would occur.

The Office Action is correct in stating that the test for obviousness is what the combined teachings of the references would have suggested. However, the MPEP makes it clear that the mere fact that references can be combined or modified does not necessarily render the resultant combination or modification obvious.

In considering whether or not a proposed modification would be obvious, the MPEP outlines several circumstances in which a proposed modification cannot be considered to be obvious. One of the recognized circumstances where there cannot be a finding of obviousness is when the proposed modification would change the principle of operation of the prior art invention being modified. Specifically, the MPEP states as follows:

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious.

As outlined above, the modification proposed in the present Office Action would substantially alter the staged upward and subsequent rearward deployment of the upper rear chamber 53. Thus, the prior art cannot be considered to provide a suitable suggestion or motivation for making the proposed modification.

Another of the recognized circumstances where there cannot be a finding of obviousness is when the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose. As outlined above, in the present instance the proposed modification would either substantially delay the second stage rearward deployment such that protection is not provided as quickly as possible or would eliminate the two stage deployment such that obstruction by the seat belt is a problem. Both of these circumstances would render the Yamamoto device unsatisfactory for its intended purpose.

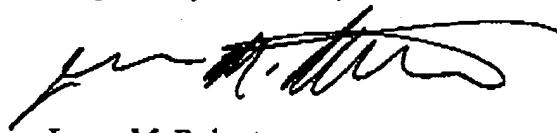
Finally, Applicants wish to emphasize that the prior art must be considered as a whole, including portions that would lead away from the claimed invention. In the present instance Yamamoto et al. places substantial emphasis on the use of a tear seam to achieve a desired staged deployment. In the face of such emphasis where the feature to be changed is a fundamental element in the operation of the prior art device, it is respectfully submitted that the art as a whole weighs heavily against the proposed redesign and that such a redesign is supportable only by application of an impermissible "obvious to try" standard or though hindsight reconstruction.

CONCLUSION:

For the reasons set forth above, it is respectfully submitted that all claims stand in condition for allowance. Prompt allowance and passage to issue is thus requested. While Applicants have attempted to address all outstanding issues, in the event that any issue remains unresolved, the Examiner is encouraged to contact the undersigned attorney in the hope that such issue may be resolved in an expedient and satisfactory manner.

A petition for a 3 month extension of time accompanies this communication.
Authorization is hereby provided to deduct any fee necessary for the acceptance of this paper
from Deposit Account 50-1424.

Respectfully submitted,

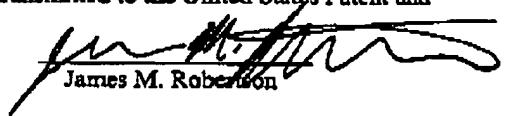


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